

CORNING GLASS WORKS
CORNING
RALEIGH, NORTH CAROLINA

ELECTRONIC RESEARCH LABORATORY

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STAT

The enclosed data now includes the Polacoat screen data.

The column headings, T_{45}^T s and T_{30}^T s, in the Technical Report No. 40, Table II, should be modified as per the Table supplied.

Very truly yours,

STAT

Electrooptics Department.

GRM:bco

Encls. (3)

Data on Samples and LS 60 G Screen

Sample	Scattering Layer Only							Complete Rear-View Screen					
	B(0)	V ₄₅ [%]	V ₃₀ [%]	T ₉₀ [%]	T ₄₅ [%]	T ₃₀ [%]	R _D [%]	T _s [%]	B(0)T _s	T _{45s} ^T [%]	T _{30s} ^T [%]	R _D T _s ² [%]	a _T [%] ○
AQ-18	3.54	51	34	66	47	30	9.5	69	2.45	32	21	4.5	0.63
AQ-11	3.96	56	38	68	49	32	10.7	46	1.82	23	15	2.3	0.133
AQ-17	3.39	50	36	64	45	29	9.5	33	1.12	15	10	1.03	0.081
AQ-20	3.12	46	29	62	45	28	9.5	22	0.69	10	6	0.46	0.062
AR-28	6.14	72	54	73	57	41	9.5	69	4.23	39	28	4.5	0.24
AR-27	6.07	70	53	74	59	41	9.5	46	2.78	27	19	2.0	0.086
AL-4	5.30	72	62	56	39	26	20	69	3.66	27	18	9.5	0.74
AL-5	5.19	72	62	54	38	26	20	46	2.39	17	12	4.2	0.135
LS 60 G	-	73	51	-	-	-	-	-	4.35	43	30	6.3	0.11

LS 60 G Dry layer thickness, 0.003 inches. Absorption appears to be incorporated into scattering layer. Substrate is clear. Square wave MTF values, 1 at 0 cycles per mm, 0.959 at 5 cycles per mm, 0.924 at 10 cycles per mm, and 0.55 at 15 cycles per mm.

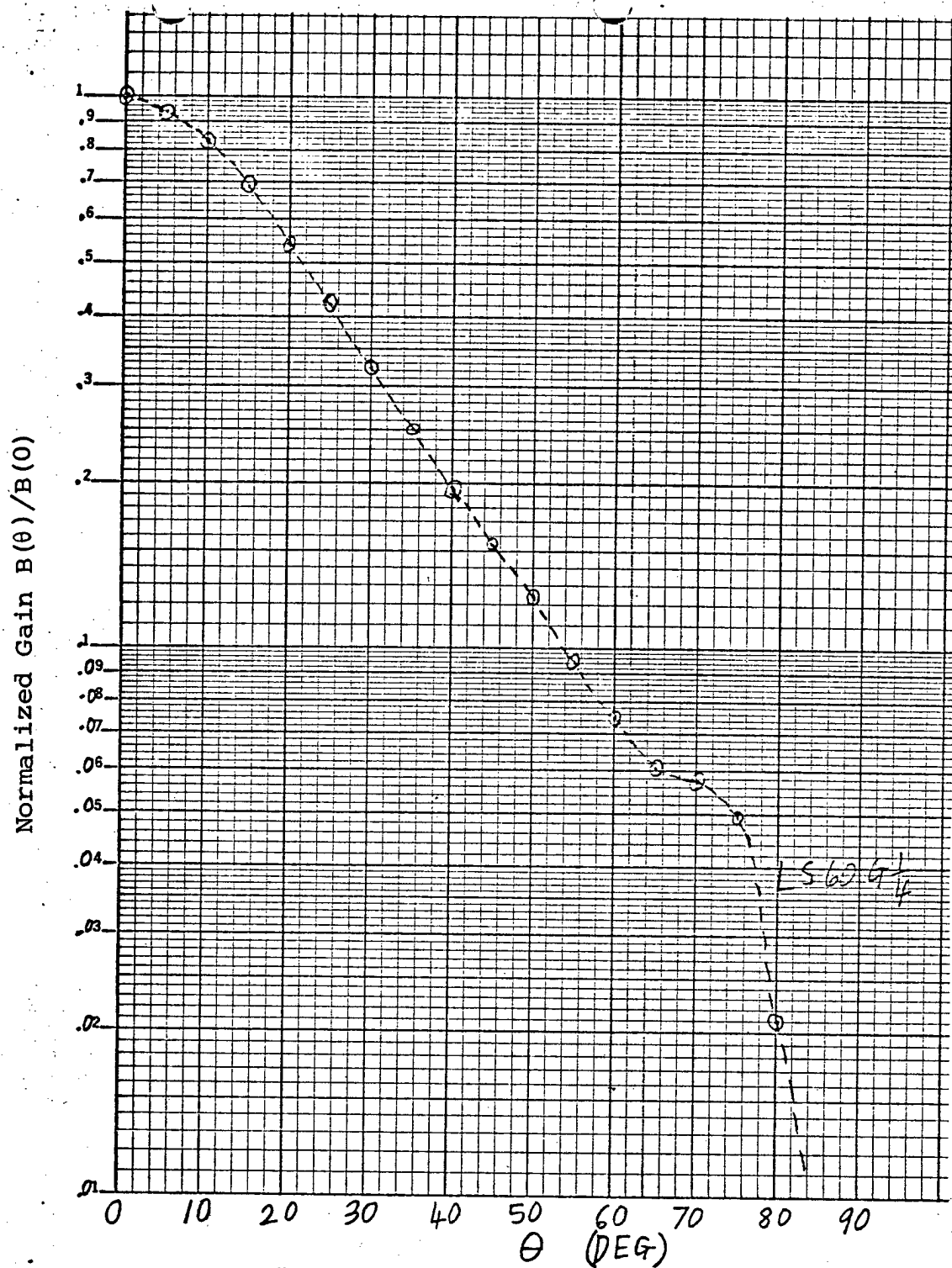


Figure 1. Normalized gain versus angle for Polacoat screen LS 60 G.

ANGULAR GAIN FUNCTION FOR SAMPLE LS60G

FRACTION OF POWER INSIDE 90 DEGREES = 51.5 PER CENT

FRACTION OF POWER INSIDE 45 DEGREES = 42.6 PER CENT

BRIGHTNESS VARIATION = +- 73 PER CENT

FRACTION OF POWER INSIDE 30 DEGREES = 30.4 PER CENT

BRIGHTNESS VARIATION = +- 51 PER CENT

SPECULAR TRANSMITTANCE = 0

ANGLE K = θ	I[K] = I (θ)	GAIN[K] = B (θ)	$\frac{B(\theta)}{B(0)}$
0	1	4.354	1.000
5	.931	4.071	.935
10	.817	3.613	.83
15	.666	3.004	.689
20	.507	2.351	.541
25	.381	1.829	.421
30	.281	1.415	.325
35	.205	1.088	.251
40	.149	.849	.195
45	.108	.666	.153
50	.079	.536	.123
55	.054	.41	.0943
60	.037	.326	.0749
65	.026	.263	.0605
70	.02	.249	.0573
75	.013	.215	.0494
80	.004	.091	.0209
85	0.00	0.00	0
85	0.00	0.00	0